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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : RAMESH et. Al.

Attorney Docket No.: D-42941-02

Serial No : Not Yet Assigned  
(Divisional of USSN 09/034,836)

Group Art Unit: Not Yet Assigned

Filing Date: Not Yet Assigned

Examiner: Not Yet Assigned

For: HEAT-SHRINKABLE MULTILAYER PACKAGING FILM COMPRISING INNER  
LAYER COMPRISING A POLYESTER

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, DC 20231

Sir:

This Preliminary Amendment is filed concurrently with the filing of the above-identified  
divisional patent application. Applicants respectfully request consideration of the patentability of  
the claims in view of the Amendments and Remarks set forth below.

42941-02.A01

## AMENDMENT

### IN THE SPECIFICATION

Kindly amend Page 5 lines 21-26 to read as follows:

Preferably, the first layer comprises ethylene/alpha-olefin copolymer, the second layer comprises ethylene/vinyl acetate copolymer, the third layer comprises polyethylene terephthalate, the fourth layer comprises polyethylene terephthalate, and the fifth layer comprises EVOH. More preferably, the first layer comprises a blend of homogeneous ethylene/alpha-olefin copolymer and heterogeneous ethylene/alpha-olefin copolymer.

### IN THE CLAIMS

Kindly cancel Claims 1-21 and 26-39, without disclaimer or prejudice.

Kindly amend the claims to recite as follows:

22. A process for packaging a product, comprising the steps of:

(A) placing a first product into a flexible, heat-shrinkable bag, the bag having an open top, whereby a first bagged product having excess bag length results, and wherein the bag comprises a heat-shrinkable multilayer film comprising:

- (1) a first layer, which is an inside bag layer, and which comprises polyolefin;
- (2) a second layer comprising at least one member selected from the group consisting of polyolefin, polystyrene, and polyurethane;
- (3) a third layer comprising at least one member selected from the group consisting of amorphous polyester and polyester having a melting point of from about 130°C to about 260°C; and
- (4) a fourth layer, which is an outside bag layer, the fourth layer comprising at least one member selected from the group consisting of polyester, polyamide, polypropylene and polyurethane; and

wherein the bag is produced by sealing the first layer to itself, whereby the first layer is an inside bag layer and the fourth layer is an outside bag layer;

- (B) repeating the placing step with a second product and a second bag, whereby a second bagged product results;
- (C) stacking at least the first and second bagged products so that the excess bag length of each of the bagged products are on top of one another and within a sealing distance of a means for heat-sealing;
- (D) heat-sealing the inside layer of first bag to itself in the region between the open end of the first bag and the product, and the inside layer of the second bag to itself in the region between the open end of the second bag and the product, so that the first product is completely sealed within the first bag and the second product is completely sealed with the second bag, the sealing being carried out at a temperature so that the resulting packaged products can be freely separated from one another without layer delamination.

Kindly add the following newly-presented claims:

---40. The process according to Claim 22, further comprising evacuating the first and second bags after they are stacked but before they are sealed.

41. The process according to Claim 22, wherein the first bag and the second bag are made from films having the same multilayer structure and composition.

42. The process according to Claim 22, wherein the film has a total free shrink, at 185°F, of from about 40 to 170 percent.

43. The process according to Claim 22, wherein the third layer comprises an amorphous polyester and the fourth layer comprises at least one member selected from the group consisting of amorphous polyester and polyester having a melting point of from about 130°C to about 260°C.

44. The process according to Claim 22, wherein the fourth layer comprises at least one member selected from the group consisting of amorphous polyamide and polyamide having a melting point of from about 130°C to about 260°C.

45. The process according to Claim 22, wherein the fourth layer comprises a polyester having from about 70 to 95 mole percent terephthalate mer units.

46. The process according to Claim 22, wherein the film has a gloss of at least 50 percent, as measured against the fourth layer by ASTM D2457.

47. The process according to Claim 22, wherein the film has a total thickness of from about 1 to about 5 mils.

48. The process according to Claim 47, wherein the film has a total thickness of from about 1.5 to about 3 mils.

49. The process according to Claim 22, wherein the film further comprises a fifth layer which serves as an O<sub>2</sub>-barrier layer and which is between the third layer and the fourth layer, the fifth layer comprising at least one member selected from the group consisting of EVOH, PVDC, polyalkylene carbonate, polyamide, and polyethylene naphthalate.

50. The process according to Claim 49, further comprising a sixth layer which comprises at least one member selected from the group consisting of polyester and polyamide, the sixth layer being between the fourth layer and the fifth layer.

51. The process according to Claim 49, wherein the first layer comprises ethylene/alpha-olefin copolymer; the second layer comprises ethylene/vinyl acetate copolymer; the third layer comprises polyethylene terephthalate; the fourth layer comprises polyethylene terephthalate; and, the fifth layer comprises EVOH.

52. The process according to Claim 49, wherein, based on total film thickness, the first layer has a thickness of from about 1 to 60 percent, the second layer has a thickness of from about 1 to 50 percent, the third layer has a thickness of from about 5 to 40 percent, the fourth layer has a thickness of from about 1 to 40 percent, and, the fifth layer has a thickness of from about 1 to 20 percent.

53. The process according to Claim 22, wherein the first layer comprises a blend of homogeneous ethylene/alpha-olefin copolymer and heterogeneous ethylene/alpha-olefin copolymer.

54. The process according to Claim 22, wherein the film comprises a crosslinked polymer network.

55. The process according to Claim 22, wherein the film has a total free shrink, at 185°F, of from about 60 to 150 percent; an impact strength of at least 60 Newtons, as measured by ASTM D3763; a gloss of at least 50 percent, as measured by ASTM D2457; and a haze of less than 10%, as measured by ASTM D1003.---

## REMARKS

### I. The Pending Claims and the Amendments to the Claims

The specification has been amended at Page 5 lines 21-26. Support for this amendment can be found in Claim 12 as filed March 4, 1998.

With the entry of the amendment set forth above, Claims 22-25 and 40-55 are pending.

Claim 22 is the only pending independent claim. Claim 22 is amended by the inclusion of a feature previously recited in canceled Claims 26 and 27. Support for newly-presented Claims 40-55 can be found in the specification, as follows:

Claim Number	Support in Specification
40	Page 2 lines 2-4 and 16-20
41	Page 2 lines 17-23
42	Page 3 lines 27-28
43	Page 4 lines 9-11
44	Page 4 lines 20-22
45	Page 4 lines 16-17
46	Page 4 lines 29-30
47	Page 5 lines 7-10
48	Page 5 lines 7-10
49	Page 5 lines 11-14
50	Page 5 lines 15-20

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51	Page 5 lines 21-24
52	Page 6 lines 1-9
53	Page 5 lines 24-26
54	Page 6 lines 9-10
55	Page 3 line 27 through Page 4 line 2; Page 6 lines 11-12; Page 4 lines 29-30; and, Page 5 lines 3-6

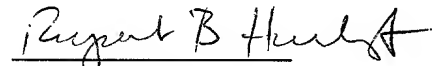
The amendments contain no new matter. A marked-up copy of the amendments to the specification and claims is provided herewith in Appendix A and Appendix B, respectively.

## **II. The Pending Claims Are Patentable over YOSHII et al**

Various pending claims in parent USSN 09/034,836 were rejected under 35 USC §103(a) as obvious over US Patent No. 6,146,726, to Yoshii et al (“YOSHII et al”). However, all of the pending claims in the instant application are patentable over YOSHII et al because all of the pending claims recite stacking the bags on top of one another before sealing the bags. YOSHII et al does not teach or suggest stacking the bags on top of one another before sealing.

In view of all of the foregoing amendments and remarks, it is respectfully submitted that Claims 1-8, 11-19, and 28-39 are patentable over the prior art of record, and in condition for allowance.

Respectfully submitted,



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Attachments: Appendix A: Amendments to Specification  
Appendix B: Amendments to Claims

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## Appendix A

Amendments to Page 5 lines 21-26:

Preferably, the first layer comprises ethylene/alpha-olefin copolymer, the second layer comprises ethylene/vinyl acetate copolymer, the third layer comprises polyethylene terephthalate, the fourth layer comprises [EVOH] polyethylene terephthalate, and the fifth layer comprises EVOH [polyethylene terephthalate]. More preferably, the first layer comprises a blend of homogeneous ethylene/alpha-olefin copolymer and heterogeneous ethylene/alpha-olefin copolymer.

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## Appendix B

### Amendments to the Claims:

22. (Once Amended) A process for packaging a product, comprising the steps of:

(A) placing a first product into a flexible, heat-shrinkable bag, the bag having an open top, whereby a first bagged product having excess bag length results, and wherein the bag comprises a heat-shrinkable multilayer film comprising:

- (1) a first layer, which is an inside bag layer, and which comprises polyolefin;
- (2) a second layer comprising at least one member selected from the group consisting of polyolefin, polystyrene, and polyurethane;
- (3) a third layer comprising at least one member selected from the group consisting of amorphous polyester and polyester having a melting point of from about 130°C to about 260°C; and
- (4) a fourth layer, which is an outside bag layer, the fourth layer comprising at least one member selected from the group consisting of polyester, polyamide, polypropylene and polyurethane; and

wherein the bag is produced by sealing the first layer to itself, whereby the first layer is an inside bag layer and the fourth layer is an outside bag layer;

- (B) repeating the placing step with a second product and a second bag, whereby a second bagged product results;
- (C) stacking at least the first and second bagged products so that the excess bag length of each of the bagged products are on top of one another and within a sealing distance of a means for heat-sealing;
- (D) heat-sealing the inside layer of first bag to itself in the region between the open end of the first bag and the product, and the inside layer of the second bag to itself in the region between the open end of the second bag and the product, so that the first product is completely sealed within the first bag and the second product is completely sealed with

the second bag, the sealing being carried out at a temperature so that the resulting packaged products can be freely separated from one another without layer delamination.

---40. The process according to Claim 22, further comprising evacuating the first and second bags after they are stacked but before they are sealed.

41. The process according to Claim 22, wherein the first bag and the second bag are made from films having the same multilayer structure and composition.

42. The process according to Claim 22, wherein the film has a total free shrink, at 185°F, of from about 40 to 170 percent.

43. The process according to Claim 22, wherein the third layer comprises an amorphous polyester and the fourth layer comprises at least one member selected from the group consisting of amorphous polyester and polyester having a melting point of from about 130°C to about 260°C.

44. The process according to Claim 22, wherein the fourth layer comprises at least one member selected from the group consisting of amorphous polyamide and polyamide having a melting point of from about 130°C to about 250°C.

45. The process according to Claim 22, wherein the fourth layer comprises a polyester having from about 70 to 95 mole percent terephthalate mer units.

46. The process according to Claim 22, wherein the film has a gloss of at least 50 percent, as measured against the fourth layer by ASTM D2457.

47. The process according to Claim 22, wherein the film has a total thickness of from about 1 to about 5 mils.

48. The process according to Claim 47, wherein the film has a total thickness of from about 1.5 to about 3 mils.

49. The process according to Claim 22, wherein the film further comprises a fifth layer which serves as an O<sub>2</sub>-barrier layer and which is between the third layer and the fourth layer, the fifth layer comprising at least one member selected from the group consisting of EVOH, PVDC, polyalkylene carbonate, polyamide, and polyethylene naphthalate.

50. The process according to Claim 49, further comprising a sixth layer which comprises at least one member selected from the group consisting of polyester and polyamide, the sixth layer being between the fourth layer and the fifth layer.

51. The process according to Claim 49, wherein the first layer comprises ethylene/alpha-olefin copolymer; the second layer comprises ethylene/vinyl acetate copolymer; the third layer comprises polyethylene terephthalate; the fourth layer comprises polyethylene terephthalate; and the fifth layer comprises EVOH.

52. The process according to Claim 49, wherein, based on total film thickness, the first layer has a thickness of from about 1 to 60 percent, the second layer has a thickness of from about 1 to 50 percent, the third layer has a thickness of from about 5 to 40 percent, the fourth

layer has a thickness of from about 1 to 40 percent, and, the fifth layer has a thickness of from about 1 to 20 percent.

53. The process according to Claim 22, wherein the first layer comprises a blend of homogeneous ethylene/alpha-olefin copolymer and heterogeneous ethylene/alpha-olefin copolymer.

54. The process according to Claim 22, wherein the film comprises a crosslinked polymer network.

55. The process according to Claim 22, wherein the film has a total free shrink, at 185°F, of from about 60 to 150 percent; an impact strength of at least 60 Newtons, as measured by ASTM D3763; a gloss of at least 50 percent, as measured by ASTM D2457; and a haze of less than 10%, as measured by ASTM D1003.---